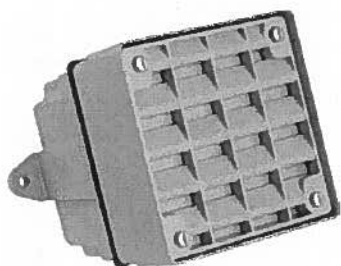


# ***STOP Loitering***

## ***On Your Property!***



## ***USE the Mosquito™ Anti-Loitering Device!***



- **Multi-age function:** 2 frequency settings: one for youth & one for people of any age
- Emits a harmless, highly annoying sound
- Disperses unwanted anti-social gatherings within a few minutes without confrontation!
- Helps prevent vandalism, graffiti, theft, drug usage & violence on your premises
- **90 - 100% success rate** in preventing loitering of youth & adults
- Makes your store a safer & friendlier place for customers & staff
- Can be activated on demand with remote control, timer, motion sensor or cell phone
- Is endorsed by police forces, convenience store chains, municipalities & more
- Falls well within the hearing protection standards of the U.S. Occupational Safety and Health Administration (OSHA)
- **Leasing available** for as little as **\$3 a day!**

**MST** Moving Sound  
Technologies Inc.

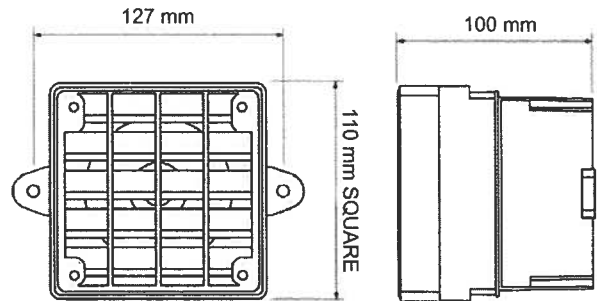
**Call: 1-888-988-7343**  
**[www.MosquitoGroup.com](http://www.MosquitoGroup.com)**  
**Leasing Available**

MST is the exclusive distributor of  
"The Mosquito" in North America

## Where the Mosquito can be used:

- outside convenience stores & shopping malls
- city parks during dark times
- on school grounds outside school hours
- in stairwells & car parkades
- around apartment buildings, bars, transit stations
- anywhere where loitering is a problem

Voltage	15Vac
Current	<500ma
Frequency	Std High Tone 17.6kHz, Selectable ALL Tone 8kHz
Sound Output	4 selectable volume settings
Operation	Std 20 minute automatic shut-off. Continuous running for special applications
Operational Range	Up to 40m, depending on ambient noise level High Tone. Up to 60m, depending on ambient noise level ALL Tone
Protection	Vandal and weather resistant IP65 enclosure suitable for external use
Temperature	-20 to +70C
Mounting	Wall mounting, angle bracket available
Color	Grey



***It was amazing!***  
Immediately the Mosquito effectively cleared out the loitering teens from the troubled area without hassle or confrontation.

Carmen Ramirez,  
Park Avenue Enterprises LLC,  
New York, NY

***We installed the Mosquito in our troubled building, and zap - no more gang bangers, drug dealers, prostitutes hanging out in hallway. Literally, within 24 hours, the difference was amazing.***

Kevin Kolbe  
Barnes Real Estate  
Chicago, IL

***The mosquito worked perfectly last night. I got it hooked up just in time for some kids to show up and make a lot of noise. After I turned it on they began complaining and left shortly thereafter. This thing is amazing.***

Wade Rohloff  
Graphic Safety  
Hobbs, NM

***It's a solution rather than calling 911 or hiring someone, which can put a big damper on your bottom line.***

Tom Ruskin  
Security Expert, Fox News  
New York, NY

***In order to prevent someone else from getting shot and killed, we have to look at the small problems too... This Mosquito device is another tool that creates a more unpleasant environment for people to just hang out and loiter. So when you combine that with all of the other factors, we seem to be making some headway in the loitering problem.***

OFC. Matt Bloesch  
Fairfield Police  
KTVU Channel 2 News

# Mosquito MK4

## Additional setup instructions

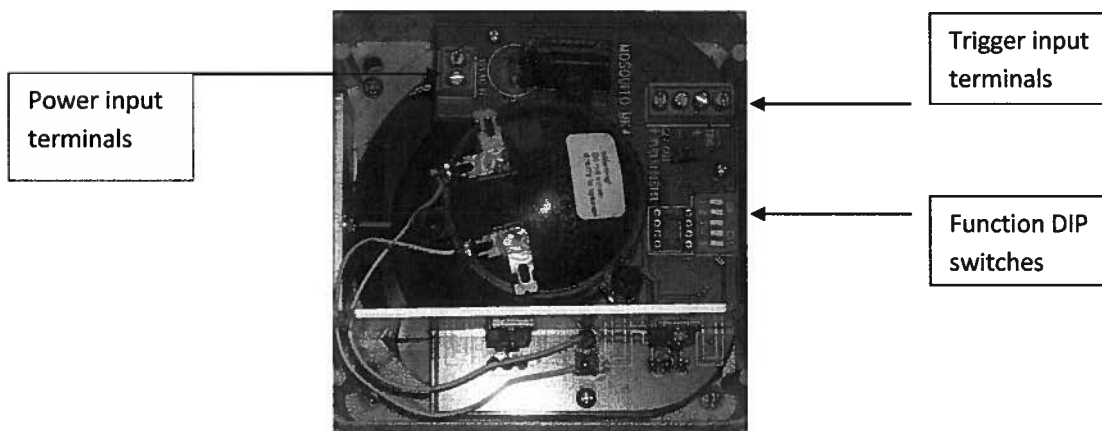
### Functions list – Selectable

1. High frequency – Affects teens and to a lesser extent, people up to the age of around 25
2. Low frequency – Audible to people of any age
3. Audible beep – A beep that is audible to everyone once per minute to warn people that the unit is running
4. Volume – 4 selectable volume levels. 94dB, 96 dB, 100 dB & 104 dB

### Important considerations before deployment

1. The sound from the Mosquito MK4 is HIGHLY targeted. This means that the sound goes where it is pointed. The sound has a dispersment angle of 60 degrees from the front of the unit. This means that there must be a CLEAR line of sight between the Mosquito and the area to be targeted.
2. The sound from the Mosquito does NOT penetrate windows, doors, walls, fences or even dense shrubbery.
3. The Mosquito should be used ONLY when a problem is experienced and at no other time.

### Wiring, triggers and settings



### Power connection

Most people purchase a 15v AC power supply with their Mosquito MK4. If you have not ordered a power supply with your Mosquito, you can either obtain one from our website or purchase one from your local electrical wholesaler. If purchasing from a wholesaler, you must specify either a 15v AC or 24v DC power supply rated at 800 mA.

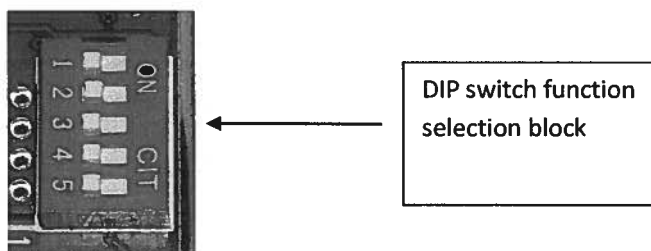
Once you are ready to connect the power supply to the Mosquito MK4, locate the power input terminals (top left of above image). There is no polarity issue to worry about, so it does not matter which wire goes in which side. Just ensure you tighten the connections fully.

### Function selection

First of all, you must decide which functions you wish to use. Choose these from the Function List above.

The function selection switches (DIP switches) can be located on the red block at the middle right hand side of the above picture.

The following picture shows ALL DIP switches set to the OFF position. If your DIP switches are in a different position, please set them ALL to the OFF position before proceeding.



### DIP Switch # 1.

This is **ONLY** used when a PIR (movement sensor) or Remote Control is being used to activate the Mosquito. If you are **NOT** using a PIR or Remote to trigger the Mosquito, this switch **MUST** be in the 'OFF' position.

If you are using a PIR to trigger the Mosquito, function chip # 2 **MUST** be fitted. Setting this DIP switch to the 'ON' setting will allow the Mosquito to run for 5 minutes each time the PIR detects movement. If this DIP switch is set to 'OFF' the Mosquito will run for 1 minute each time the PIR detects movement.

If you are using a Remote Control PRO., function chip # 3 **MUST** be fitted, then this switch **MUST** be set to the 'ON' position (see further details below).

#### DIP Switch # 2.

If this DIP switch is set to 'ON' the Mosquito will operate in 'Low frequency' mode which is audible to people of all ages. If this switch is set to 'OFF' it will operate in 'High frequency' mode audible to younger people only.

#### DIP Switch # 3.

If this DIP switch is set to 'ON' there will be an audible beep that everyone can hear once every minute that the Mosquito is running. If the switch is set to 'OFF' there will be NO audible beep.

#### DIP Switch # 4 & 5.

To set the volume you require, follow the configurations for switches 4 & 5 below.

94 dB – Switch # 4 'OFF' & switch # 5 'OFF'

96 dB – Switch # 4 'OFF' & switch # 5 'ON'

100 dB – Switch # 4 'ON' & switch # 5 'OFF'

104 dB – Switch # 4 'ON' & switch # 5 'ON'

#### Trigger connection. (With function chip # 3 fitted)

If you wish to use a Pro. Remote control to trigger the activation / deactivation of the Mosquito, the remote must be connected to the 'Trigger input' block located in the top right corner of the first image above.

Connect the switching wires from the Pro. Remote to the 'TRG –' & 'TRG +' terminals. You MUST then set DIP switch # 1 to the 'ON' position.

Connect the power wires from the remote Pro to the '12v +' & '12v –' terminals located on the left side of the 'Trigger block'.

#### Trigger connection. (With function chip # 2 fitted)

If you wish to use a PIR to trigger the activation / deactivation of the Mosquito, the PIR must be connected to the 'Trigger input' block located in the top right corner of the first image above.

Connect the switching wires from the PIR to the 'TRG –' & 'TRG +' terminals.

Connect the power wires from the PIR to the '12v +' & '12v –' terminals located on the left side of the 'Trigger block'.

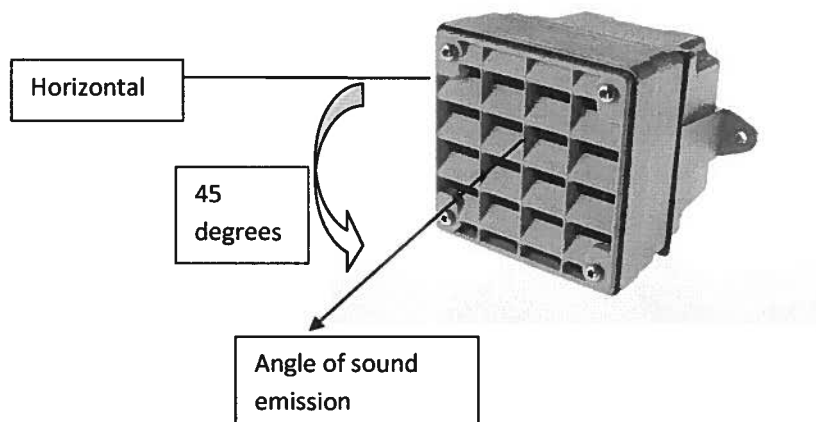
The length of time the Mosquito runs for each time movement is detected is set by changing the position on DIP switch # 1. See above for details

### Mounting.

The Mosquito MK4 housing has a louvered front (see below). It is VERY important to note when installing the Mosquito that the louvers project the sound down at a 45 degree angle. This means that if you mount the Mosquito directly on to a wall, the sound will project down at 45 degrees.

If the area to be targeted is further away than this 45 degree angle will cover, you MUST use the mounting bracket (supplied) and either angle the unit upwards (to increase the range) or downwards (to reduce the range).

### Mosquito MK4 – Example of sound projection when mounted flush to a vertical surface



### Speed of effect

The Mosquito has been known to work within 30 seconds of being activated, however, sometimes it can take a week or two of regular use for the teens to stop causing the problems and or hanging around at the location.

The speed at which the Mosquito will have the desired effect will depend on several factors...

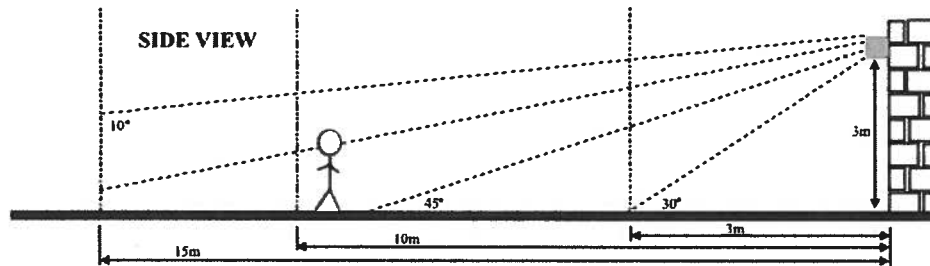
1. Volume setting
2. Frequency setting
3. Distance to target area
4. Ambient noise levels.

The quieter the location and the closer to the target area you can install the unit, the faster you will see results.

# Installation Instructions Mosquito MKII

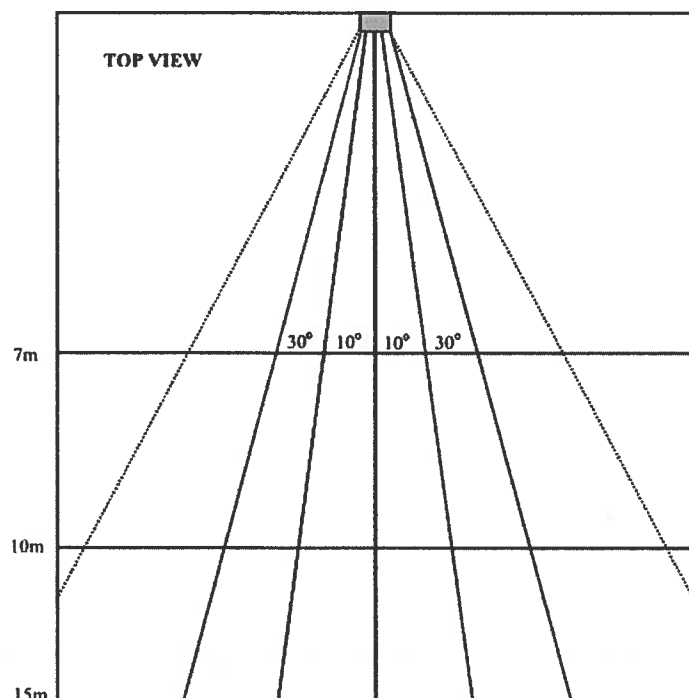
## Where to install?

The sound the Mosquito generates is very directional so it is important that the area to be covered is correctly identified so that the unit is effective. The front plate (baffle) projects the sound down by approximately  $30^\circ$  when mounted horizontally. Care must be taken when adjusting the mounting bracket to ensure the device is angled correctly. Please note the sound is not going where the device is pointing due to the baffle as illustrated below where the unit is mounted flat to the wall at a height of 3m.



The range of the Mosquito depends on the level of background noise but typically the unit needs to be installed within 10m of the problem area. Once the Teenagers become aware of the noise they will usually not want to stand within 20m of the Mosquito. The closer they are to the unit the quicker the effect.

The angle the sound is projected at is detailed in the drawing below. Again it is important to ensure the unit is pointed correctly for maximum efficiency. The Mosquito has a spread of approximately  $60^\circ$ .



### **Testing the Installation**

The best test procedure is to acquire the assistance of a helpful Teenager were this is not possible a suitable test meter can be purchased from CSS ltd. Stand the said Teen in the correct position and turn the Mosquito on. You should hear the complaints! ☺

To facilitate installation and to check that the unit is running the Mosquito produces a short beep once every minute that should be heard by all ages.

### **My Mosquito is not having any effect why?**

Check the switch settings and that you can hear the short beep.

The most common reasons for this is that the device does not have range to cover the required area. The solution is either to relocate the unit closer to the target point or use additional units. There may be no problem other than stubborn Teenagers; the Mosquito will win out just be patient it can take several weeks before the most stubborn individuals give up and move on for good.

INCLUDE PROTECTIVE  
CAGES AS PER ADDENDUM

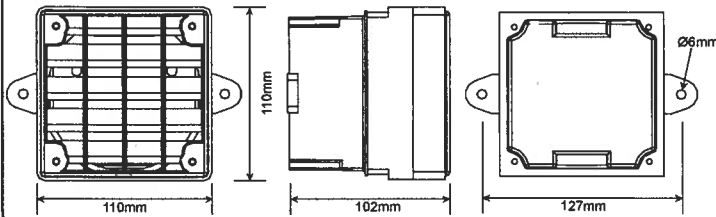


- Voltage : 15 Vac
- Current : ~400mA
- Cable : 0.28mm<sup>2</sup> ~ 2.5mm<sup>2</sup>
- Temperature Range :- 25°C ~ +55°C
- Outdoor Use : Weatherproof

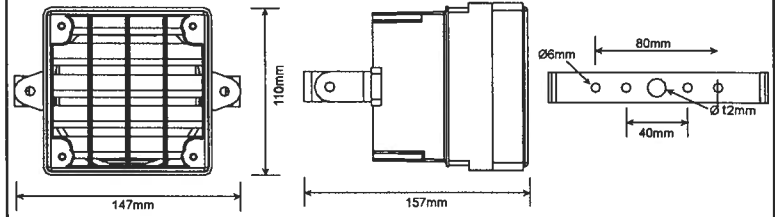
- Security Cage
- Power Supply
- PIR (N/O)

## Dimensions

### Direct Wall Mounting



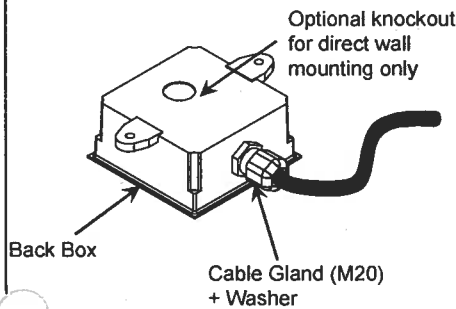
### Bracket Wall Method



## Installation

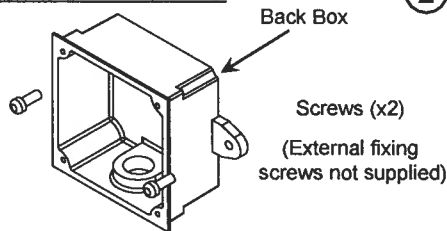
### Back Box Preparation

①



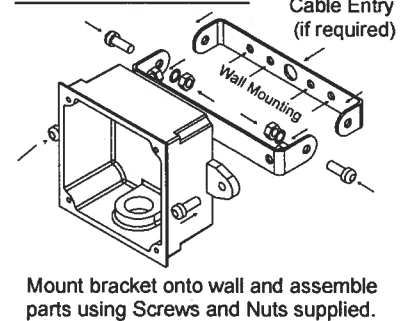
### Direct Wall Mounting

②



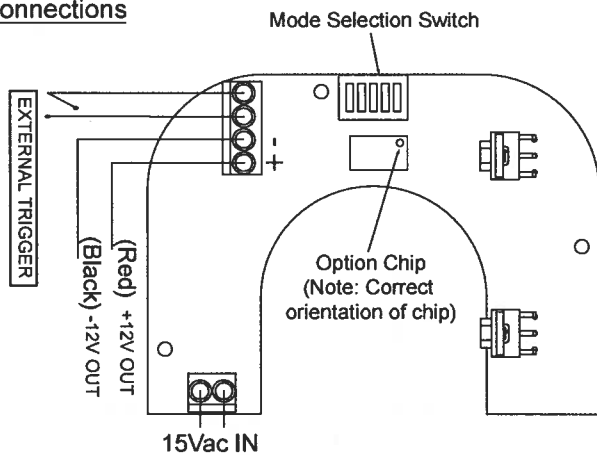
### Bracket Wall Method

③



### Connections

④



### Switch Settings

⑤

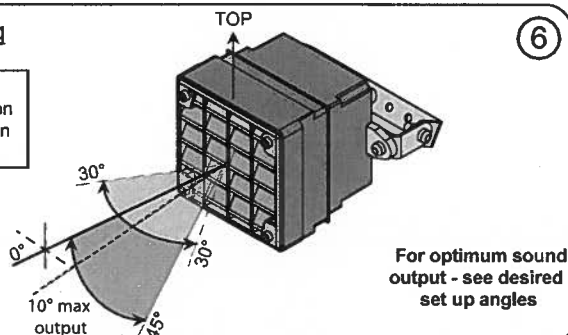
Switch Setting			Sound Volume Levels			
1	2	3	4	5	*High Power	*Low Power
Trigger Options	Tone Type	Audible BEEP	Open	Open	104db	94db
OPEN	* Sound 1 Minute	High Frequency	Open	Closed	100db	90db
CLOSED	* Sound 5 Minutes	Low Frequency	Closed	Open	96db	86db
			Closed	Closed	94db	84db

- \* 1. Note: All these settings are dependant on the Chip Option Fitted.  
2. Sound volume levels approximate only

### Positioning

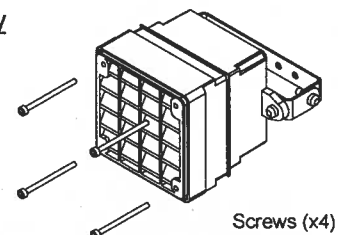
⑥

Important  
During installation  
notice orientation  
of grill



### Final Assembly

⑦



Note: Ensure cables do not become trapped in the casing. When wiring is completed, mount front of Mosquito Sounder onto the back box and fix using the screws provided.